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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,045	02/09/2000	Glenn T. Colon-Bonet	10971158-1	3338

22879 7590 02/06/2004

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 02/06/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

pp4

# Office Action Summary

Application No.

09/501,045

Applicant(s)

COLON-BONET, GLENN T.

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,7,8,10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4, 7-8, and 10-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This communication is responsive to Amendment E, filed 1/12/2004.
2. Claims 1-2, 4, 7-8, and 10-11 are pending in application. Claims 1 and 7 are independent claims. In the Amendment E, claims 1 and 7 are amended and claims 3, 5-6, 9, and 12-22 are cancelled. This action is made final.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2, 4, 7-8, and 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, the limitation "add the separate...in accordance with ...sum value and a carry value" in lines 11-14, particularly the term "in accordance", is unclear whether the process of adding/combining the third PKG with a carry-in bit is in according to any particular steps or just adding or combining the third PKG with a carry-in bit without any particular steps. For examination purposes, the examiner considers the limitation as "add the separate...number representation with a carry-in bit to generate a sum value and a carry value". Claim 7 has the same problem as cited in claim 1.

Thus, claims 2, 4, 8, and 10-11 are also rejected for being dependent on the rejected base claims 1 and 7 respectively.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 4, 7-8, and 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Bradley (U.S. 6,496,846).

Re claim 1, Bradley discloses in Figure 1 an apparatus for performing the addition of PKG recoded numbers (abstract) comprising: a circuitry (102) configured to receive at least a first operand and a second operand (A and B from 0<sup>th</sup> to 7<sup>th</sup> bits), the first and second operands comprising respective first and second PKG recoded number representations (output of 106-1 encoder) of respective first and second binary operands; a first carry-save (col. 1 lines 65-66) adder (107-1, 108-1, and 109-1 in 105) configured to add first operand and second operand to generate a PKG recoded number presentation (PKGIN according to col. 4 lines 42-48 expressions); and a modified carry-save (col. 1 lines 65-66) adder (106) configured to receive the third PKG recoded number representation (PKGIN as input to 106) from the first carry-save adder, add the separate PKG of the third PKG recoded number representation in accordance with a carry-in bit to, generate a sum (SUMH and SUML in 106) and a carry value (PKG0 in 105).

Re claim 2, Bradley further discloses in Figure 1 sum and carry are dual rail encoded value (col. 1 line 46).

Re claim 4, Bradley further discloses in Figures 2A-2B the circuitry is configured to receive and apply a carry-in value (Cin) to the modified carry-save adder.

Re claim 7, it is a method claim of claim 1. Thus, claim 7 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 8, it is a method claim of claim 4. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 4.

Re claim 10, it is a method claim of claim 2. Thus, claim 10 is also rejected under the same rationale in the rejection of rejected claim 2.

Re claim 11, it is a method claim of claim 1. Thus, claim 11 is also rejected under the same rationale in the rejection of rejected claim 1.

### ***Response to Arguments***

7. Applicant's arguments filed 1/12/2004 have been fully considered but they are not persuasive.

a. The applicant argues in page 8 second paragraph that Bradley does not disclose an apparatus that receives first and second PKG recoded number and disagrees boxes 107-1, 108-1, and 109-1 teaches first carry-save adder.

The examiner respectfully submits that the boxes 107-1, 108-1, and 109-1 teaches first carry-save adder (e.g. in col. 4 lines 42-47  $G_{in}[2] = G[1] + P[1]G[0]$ ;  $K_{in}[2] = K[1] + P[1]K[0]$ ;  $P_{in}[2] = P[1]P[0]$ ) even though Figure 1 labels the general block

105 is an encoder. Therefore, the boxes 107-1, 108-1, and 109-1 receives first and second PKG recoded number (e.g. in col. 4 lines 42-47 PKG[0] and PKG[1] in order to compute KinPinGin[2]).

- b. The applicant argues in page 8 third paragraph that Bradley does not disclose a circuitry configured to receive at least a first operand and a second operand, the first and second operands comprising respective first and second PKG recoded number representations of respective first and second binary operands.

The examiner respectfully submits that Bradley clearly disclose the circuitry (105 in Figure 1) configured as above to receive at least a first operand (e.g. PKG[0]) and a second operand (e.g. PKG[1]), the first and second operands comprising respective first and second PKG recoded number representations of respective first and second binary operands (A and B binary operands).

- c. The applicant argues in page 8 last paragraph that Bradley does not disclose first carry-save adder configured to add said first operand and said second operand to generate a third PKG recoded number representation.

The examiner respectfully submits that Figure 1 is the carry-save adder (col. 1 lines 65-67) that is configured (parts 107-1, 108-1, 109-1) to add first and second operands (PKG[0] and PKG[1]) to generate a third PKG recoded number representation (PinKinGin[2]).

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- d. The applicant argues in page 9 first paragraph that Bradley fails to disclose third PKG recoded number.

The examiner respectfully submits that the third PKG recoded number in Bradley's invention is  $Kin[i]Pin[i]Gin[i]$  (107-1; 108-1; 109-1) in Figure 1 (e.g. in col. 4 lines 42-47  $Gin[2] = G[1]+P[1]G[0]$ ;  $Kin[2] = K[1]+P[1]K[0]$ ;  $Pin[2] = P[1]P[0]$ ).

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

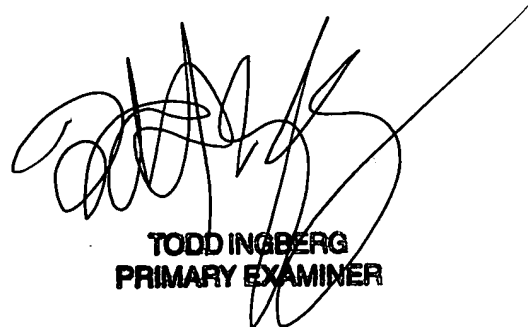
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do  
Examiner  
Art Unit 2124

February 4, 2004



**TODD INBERG**  
**PRIMARY EXAMINER**